

CLAIMS

1. An information record medium on which there are recorded:
video information to indicate a main-video;
5 sub-video information to indicate a sub-video displayable at
least partially over the main-video; and
sub-video control information including (i) sub-frame range
information to indicate at least a partial area of the sub-video as a
sub-frame and (ii) sub-frame control information to control
10 displaying the sub-frame to be displayed over the main-video,
wherein
the sub-frame control information includes dynamic control
information to display dynamically the sub-frame.
- 15 2. The information record medium according to claim 1, wherein
the dynamic control information includes information to
change dynamically at least one of a display position, a display size
and a display shape of the sub-frame to be displayed over the
main-video.
- 20 3. The information record medium according to claim 1, wherein
the dynamic control information includes information to
change dynamically a display content within the sub-frame whose
display position, display size and display shape are fixed relative to
25 the main-video.

4. The information record medium according to claim 1, wherein the sub-frame range information designates a rectangular area as the sub-frame, the rectangular area occupying a part of the sub-video, and
- 5 the dynamic control information has information to change dynamically the display content within the sub-frame by changing the rectangular area designated by the sub-frame range information relative to the sub-video.
- 10 5. The information record medium according to claim 1, wherein the dynamic control information has information to display dynamically the sub-frame in such a manner that the sub-frame moves two-dimensionally or three-dimensionally relative to the main-video.
- 15 6. The information record medium according to claim 1, wherein the main-video information, the sub-video information and the sub-video control information are divided into predetermined packet units and multiplexed, and further streamed relatively into a
- 20 video stream composed of the divided main-video information, a sub-picture stream composed of the divided sub-video information and a control information stream composed of the divided sub-video control information.
- 25 7. An information record apparatus comprising:
a first record device for recording video information to

indicate a main-video;

a second record device for recording sub-video information to indicate a sub-video displayable at least partially over the main-video; and

5 a third record device for recording sub-video control information including (i) sub-frame range information to indicate at least a partial area of the sub-video as a sub-frame and (ii) sub-frame control information to control displaying the sub-frame to be displayed over the main-video, wherein

10 the third record device records the sub-frame control information in such a manner that the sub-frame control information includes dynamic control information to display dynamically the sub-frame.

15 8. An information record method comprising:

a first record process of recording video information to indicate a main-video;

a second record process of recording sub-video information to indicate a sub-video displayable at least partially over the
20 main-video; and

a third record process of recording sub-video control information including (i) sub-frame range information to indicate at least a partial area of the sub-video as a sub-frame and (ii) sub-frame control information to control displaying the sub-frame to
25 be displayed over the main-video, wherein

the third record process is for recording the sub-frame control

information in such a manner that the sub-frame control information includes dynamic control information to display dynamically the sub-frame.

5 9. An information reproduction apparatus for reproducing the information record medium according to claim 1, said information reproduction apparatus comprising:

a reproduction device for reproducing the video information, the sub-video information and the sub-video control information;

10 a display output device capable of displaying and outputting the reproduced sub-video information over the reproduced video information; and

a control device for controlling the display output device to display dynamically the sub-frame over the main-video, on the basis
15 of the sub-frame control information in the reproduced sub-video control information.

10. An information reproduction method of reproducing the information record medium according to claim 1, said information
20 reproduction method comprising:

a reproduction process of reproducing the video information, the sub-video information and the sub-video control information; and

a control process of controlling a display output device
25 capable of displaying and outputting the reproduced sub-video information over the reproduced video information to display

dynamically the sub-frame over the main-video, on the basis of the sub-frame control information in the reproduced sub-video control information.

5 11. An information record reproduction apparatus comprising:

a first record device for recording video information to indicate a main-video;

a second record device for recording sub-video information to indicate a sub-video displayable at least partially over the
10 main-video; and

a third record device for recording sub-video control information including (i) sub-frame range information to indicate at least a partial area of the sub-video as a sub-frame and (ii) sub-frame control information to control displaying the sub-frame to
15 be displayed over the main-video, wherein

the third record device records the sub-frame control information in such a manner that the sub-frame control information includes dynamic control information to display dynamically the sub-frame, and

20 said information record reproduction apparatus further comprising:

a reproduction device for reproducing the video information, the sub-video information and the sub-video control information;

a display output device capable of displaying and outputting
25 the reproduced sub-video information over the reproduced video information; and

a control device for controlling the display output device to display dynamically the sub-frame over the main-video, on the basis of the sub-frame control information in the reproduced sub-video control information.

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12. An information record reproduction method comprising:

a first record process of recording video information to indicate a main-video;

a second record process of recording sub-video information to
10 indicate a sub-video displayable at least partially over the main-video; and

a third record process of recording sub-video control information including (i) sub-frame range information to indicate at least a partial area of the sub-video as a sub-frame and (ii)
15 sub-frame control information to control displaying the sub-frame to be displayed over the main-video, wherein

the third record process is for recording the sub-frame control information in such a manner that the sub-frame control information includes dynamic control information to display
20 dynamically the sub-frame, and

said information record reproduction method further comprising:

a reproduction process of reproducing the video information, the sub-video information and the sub-video control information;
25 and

a control process of controlling a display output device

capable of displaying and outputting the reproduced sub-video information over the reproduced video information to display dynamically the sub-frame over the main-video, on the basis of the sub-frame control information in the reproduced sub-video control
5 information.

13. A computer program for a record control to control a computer disposed at the information record apparatus according to claim 7, said computer program making the computer function as at
10 least a part of the first record device, the second record device and the third record device.

14. A computer program for a reproduction control to control a computer disposed at the information reproduction apparatus
15 according to claim 9, said computer program making the computer function as at least a part of the reproduction device, the display output device and the control device.

15. A computer program for a record reproduction control to
20 control a computer disposed at the information record reproduction apparatus according to claim 11, said computer program making the computer function as at least a part of the first record device, the second record device, the third record device, the reproduction device, the display output device and the control device.

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16. A data structure including a control signal, said structure

including:

video information to indicate a main-video;

sub-video information to indicate a sub-video displayable at least partially over the main-video; and

5 sub-video control information including (i) sub-frame range information to indicate at least a partial area of the sub-video as a sub-frame and (ii) sub-frame control information to control displaying the sub-frame to be displayed over the main-video, wherein

10 the sub-frame control information includes dynamic control information to display dynamically the sub-frame.